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Research Article

**RANDOM CROSS-SECTIONAL STUDY TO KNOW THE UNTREATED DENTAL CARIES CONSEQUENCES AND ITS PREVALENCE IN THE URBAN AND RURAL SCHOOL GOING CHILDREN OF MULTAN**<sup>1</sup>Dr. Ayesha Aziz, <sup>2</sup>Dr. Zahida Shaukat, <sup>3</sup>Dr. Samia Zia<sup>1</sup>Nishtar Dental College, Multan<sup>2</sup>WMO, THQ Hospital Hassanabdal, Attock<sup>3</sup>LMDC**Abstract:**

**Objectives and Targets:** Investigating the frequency of caries Experience of using rotten teeth without caries (CADD) / decayed and untreated tooth decay (index PUFA / PUFA) ratio and severity of clinical outcomes (work) 6-12 of children in urban and rural schools in the Multan district and age groups of 15 years.

**Study Design:** Random cross-sectional study.

**Place and Duration:** The Study was performed in the urban and rural areas School of District Multan for the period of one year from February 2016 to February 2017.

**Material and Methods:** 689 children in the Multan of age groups 6, 12 and 15 in the urban and rural areas of school were selected. To assess tooth decay experience Intraoral examination was performed using the World Health Organization criteria. CPMD / haptic and PUFA / pufa indices were used to collect the data and the collected data were tabulated and subjected to statistical analysis.

**Results:** The average frequency of urban untreated dental caries clinic results (AGP + PUFA > 0): 11.9%, urban: 10.7% for urban children: 6 years old and 26.28% for urban: caries (CPOF + haptic > 0) untreated caries rate, PUFA ", 53.33% in rural areas, 50% in urban areas; For 12 years, it was found to be 16% and 18.04% for urban and rural children, respectively, over 15 years, while it was 16.43% and 41.05% respectively.

**Conclusion:** In this Study the untreated dental decay prevalence and clinical outcomes of age groups of 6 and 12 years in rural children is high. The use of PUFA / PUFA for this reason, ratio in addition to the conventional decay prices can elaborate the untreated tooth decay problems and results were neglected. PUFA / PUFA in addition can be used by health supervisors to control, plan and finalize the treatment plan.

**Key words:** Decay rate of untreated decay, indexed teeth, untreated tooth decay, incomplete CRP filled with PUFA ratio.

**Corresponding Author:****Dr. Ayesha Aziz,**

Nishtar Dental College, Multan

QR code



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**INTRODUCTION:**

Despite improvements in oral health in high-income countries in recent decades, tooth decay is a major global public health problem. Because it involves the interaction between genetic and environmental factors in biological components. Social, behavioral and psychological are expressed in a very complex and interactive way. The World Health Organization (WHO) adopted the missing tooth decay index (DMFT) in the oral health assessment form to conduct national oral health surveys. This classic index does not provide information about the clinical consequences of untreated dental caries, such as pulp involvement and dental abscess, which may be more threatening than the lesions themselves, despite providing information about bruises and restorative and surgical treatment. rotten. For this reason, in 2014, the World Health Organization World Health Organization accepted the growing burden of oral diseases all over the world and stressed the need to expand actions based on comprehensive data collection systems. An index called the "PUFA" index (i.e. pulp involvement, ulcer attached to root fragments, fistula and abscess) In 2014, he is trying to complete and increase his sensitivity to the original DMFT index (decayed, decayed and full of teeth) and record the consequences of a desperate lesion. Data collected via this index may be effective in deciding oral care authorities, which is not possible with the DMF index.

The aim of this study was to evaluate the prevalence of the caries experience using the DMFT / haptic index and to confirm the PUFA / PUFA index, assessing the prevalence and severity of oral conditions with untreated bruises in groups of 6. He goes to the children of Multan District of 12 and 15 years old in urban and rural school.

**MATERIAL AND METHOD:**

The study was conducted in a total of 336 rural children with a score of 689 children and a 353 urban school district in Multan and two trained surveys and

an oral exam for the collection of master PDE / data (permanent dentistry and primary) and a PUFA / Pupe indices. Before continuing the survey, an institutional ethical permit was obtained. Inter-rater reliability was assessed using static kappa. The Kappa value was 0.78, indicating an important agreement among researchers.

The examinations used sterile mouth mirrors, CPITN-E probes and examined under illumination. According to the WHO age selection criteria, school children are divided by age 6, 12 and 15, respectively, in rural and urban schools. Examination and interpretation were done according to WHO criteria for tooth decay. The collected data were tabulated and subjected to statistical analysis.

PUFA / PUFA: An epidemiological assessment takes into account the status of the dentures and periapical tissues, and the tooth decay, which is referred to as an index of clinical results of untreated dental decay in others. pulp involvement, ulcer, fistula, and abscess In the primary (PUFAs) and permanent dentition (PUFA): PUFA suggested abbreviation of the initials of the English names of the clinical situations evaluated. The records are usually calculated in the same way as the PUFA rate DMF and 0 are given in Table 1 in the case of tooth 1 and a tooth description obtained from the status code without code of assignment is 0 to 20 PUFA in the primary tooth and 0 to 32 PUFA in the primary tooth, because of the sum of the teeth with code 1.

The data were analyzed using SPSS software version 17 (IBM Software Corporation) and the results of dental decay frequencies and untreated dental decay results, ie tentative PDE / and PUFA / PUFA rural and three urban calculated individual age groups.

**RESULTS:**

689 in total; Children were assessed at the age of 6, 12 and 15 years in urban school age (353) and rural (336) in Multan District; The experience and frequency of decay in rural and urban areas are shown in Table 2.

**Table 2: Caries experience and frequency in rural and urban areas**

Age (years)	Region	dft (%)		DMFT (%)		Pufa (%)		PUFA (%)	
		=0	>0	=0	>0	=0	>0	=0	>0
6	Rural - 125	29 (23.2)	96 (76.8)	100 (80.0)	25 (20)	64 (51.2)	61 (48.8)	122 (97.6)	3 (2.4)
	Urban - 99	48 (48.5)	51 (51.5)	96 (97)	3 (3)	73 (73.7)	26 (26.3)	99 (100.0)	0
12	Rural - 99	81 (81.8)	18 (18.2)	39 (39.4)	60 (60.6)	91 (91.9)	8 (8.1)	95 (96)	4 (4)
	Urban - 131	68 (59)	63 (48.1)	120 (91.6)	11 (8.4)	98 (74.8)	33 (25.2)	125 (95.4)	6 (4.6)
15	Rural - 112	107 (95.5)	5 (4.5)	59 (52.7)	53 (47.3)	111 (99.1)	1 (9)	104 (92.9)	8 (7.1)
	Urban - 123	121 (98.4)	2 (1.6)	67 (54.5)	56 (45.5)	121 (98.4)	2 (1.6)	115 (93.5)	8 (6.5)

dft: Decayed, extracted, and filled teeth, DMFT: Decayed missing filled teeth

the average prevalence of caries (CPOF + tactile > 0) is 37.37% in rural and 26.28% in urban and the average prevalence of untreated dental caries (AGP + PUFA > 0) is shown in Table 1.

**Table 1: Description of the clinical situation assigned by individual codes for PUFA according to Monse *et al*.**

Code	Name	Description
P/p	Pulpal involvement	Recorded when the opening of the pulp chamber is visible or when the coronal tooth structures have been destroyed by the carious process and only roots or root fragments are left
U/u	Ulceration	Recorded when sharp edges of a tooth with pulpal involvement or root fragments have caused traumatic ulceration of the surrounding soft tissues, e.g., tongue or buccal mucosa
F/f	Fistula	Recorded when a pus releasing sinus tract related to a tooth with pulpal involvement is present
A/a	Abscess	Recorded when a pus containing swelling related to a tooth with pulpal involvement is present

For the last 6 years, the ratio of untreated voids has been found to be 50% and 53.33%, and for 15 years, in urban and rural areas the children have been found 16438 and 41.05% for 12 years 17.54. % And 15%, respectively, as shown in Table 4.

**Table 3: Prevalence of DMFT + deft >0 and PUFA + pufa >0 in rural and urban areas**

Age (years)	Prevalence	Rural		Urban	
		Mean	SD	Mean	SD
6	DMFT + deft >0	0.484	0.51	0.2727	0.446
	PUFA + pufa >0	0.256	0.437	0.1313	0.3386
12	DMFT + deft >0	0.388	0.488	0.28	0.45
	PUFA + pufa >0	0.061	0.24	0.149	0.337
15	DMFT + deft >0	0.259	0.439	0.2358	0.425
	PUFA + pufa >0	0.04	0.197	0.04	0.198
Total	DMFT + deft >0	0.3757		0.2628	
	PUFA + pufa >0	0.119		0.107	

SD: Standard deviation, deft: Decayed, extracted, and filled teeth, DMFT: Decayed missing filled teeth

**Table 4: Ratio of untreated caries and PUFA in urban and rural areas**

Age (years)	Rural	Urban
6	53.33	50
12	16.438	41.05
15	15	17.54

There was no statistically significant difference between urban and rural areas. The results of this study showed that in the prevalence of tooth decay, the caries prevalence was significantly higher in the age group of 6, in rural areas, but not in the treatment. It has been determined that the 6 year "untreated decay rate, PUFA" is higher in the rural area; When they were 15 years old, children had higher levels in the urban area.

### DISCUSSION:

Tooth decay is the most common childhood disease and noncommunicable disease worldwide (Petersen *et al.*, 2012; Oziegbe *et al.*, 2013). Most tooth decay has no significant effect on overall health, quality of life, productivity, behavior, development and children's educational performance. In this study, 689 students in Vishakhapatnam province in rural and urban areas for 6, 12 and 15 age groups were evaluated for dental decay situations and indexes using CPFD / right hand and dental decay results untreated using PUFA / Pufa. The DMFT index is used around the world to collect data on bruises,

although this code provides limited information about the severity of further injuries with scoring of the teeth "specified for extraction", but does not provide accurate information on the clinical outcome of untreated dental caries. This may also exaggerate or underestimate the prevalence of dental caries, since it not only shows impairment, but also shows missing (M) and full (F) components. Over the past decade, the International Caries Epidemiology has focused on the development of more sensitive diagnostic criteria for the evaluation of early stages of decay in developed nations. However, in developing countries such as India, despite the reduction in dental caries, a large part of the decay is not treated, which gives birth to numerous results, so a diagnostic index is required to address the next step. Therefore the untreated caries lesions in this study, "PUFA / puff to" index, to report the results of untreated caries lesions treated in the population used as an excellent epidemiological and educational tool DMFT / we use with haptic index. This PUFA / puff index, the raid could be more serious than bruises and often overlooked the fleeing mouth conditions "in the face

of reality," he describes the four different clinical stages of advanced caries allowing wherein the selected age groups, recommended index age by WHO for the assessment of oral health on the basis of the methodology of oral health research. In this study, the prevalence of CPOD / handicraft in different age groups was 37.37% and 26.28% in rural and urban children respectively; This was done by Adekoya-Sofowora et al. (10.9%), in Nigeria Adeniyi et al. (10.9%) and Öziegbe and Esan (16.9%). However, due to the lack of uniformity in the selection of samples, age groups and examination procedures, comparisons between studies should be made with caution.

The incidence of untreated PUFA / pufa tooth decay was 11.9% in rural areas and 10.7% in urban children. This rate was calculated by Figueiredo et al. (2011) were Brazilian children between the ages of 5 and 6 (23.7%), Monse et al. In the Philippines (85%), Baginska et al. Among the Polish children (43.4%), Monse et al. (56%), Benzian et al. (55.7%) and Leal et al. (26.2%). This inconsistency can be attributed to the increased frequency of caries as well as to limited tooth decay due to variability in eating habits.

In many studies, the association between tooth decay age and prevalence has been reported. The caries frequency rate is high in a group of 6-year-olds who are in agreement with many studies, and this study mainly focuses on parents' lack of awareness and negative attitudes towards primary teeth; It is thought that only 4% of parents have knowledge about temporary teeth, and 82% of parents think primary teeth are not important, which may depend on cultural beliefs or beliefs. The teeth may increase the likelihood that the simple fact that large children have been exposed to environmental damage for a long period of time in their mouths indirectly leads to a further progression in the continuity of dental disease.

### CONCLUSION:

When used in conjunction with this new index (PUFA) clinical examination and DMV index, effective planning and management [to provide qualitative and quantitative information on untreated dental decay to an individual or population based on providing additional information for health planners 6]. target group. For this reason, the use of the ratio of PUFA / PUFA as an adjunct to classical decay rates can address the problem of untreated tooth decay and neglect of its consequences. In addition, PUFA / PUFA obtained data can be used to plan, monitor, and evaluate treatment by epidemiologists and healthcare providers.

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